


**SAMPLING AND ANALYSIS PLAN
FOR
HOPE IRON AND METAL
EPA ID No. ARN000607050
HOPE, HEMPSTEAD COUNTY, ARKANSAS**

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1.0 SITE BACKGROUND

Hope Iron & Metal, located in Hope, Hempstead County, Arkansas, is a former salvage yard located within a residential neighborhood. The site was first brought to ADEQ's attention because of its location in a residential area and its previous use as a metal salvage yard that stored and drained PCB-containing transformers. A Site Inspection (SI) was conducted on Hope Iron and Metal in August 2012 and found the site to be contaminated, in particular with lead and PCBs. Since the site had a Hazardous Ranking System Quickscore of 34.51 for the SI, an Expanded Site Inspection (ESI) was recommended to further delineate contamination. In order to properly Quickscore the site, additional sampling is being conducted. Therefore, ADEQ personnel are conducting a soil sampling investigation in an unannounced visit at the Hope Iron & Metal site. ADEQ Hazardous Waste personnel will coordinate with the USEPA Region 6 Laboratory to schedule the appropriate samples. The data will be used to determine the nature and extent of contamination within 200 feet of the residences located southwest of the Hope Iron & Metal site.

2.0 SAMPLING PLAN

The objective of sampling is to acquire information that will assist in identifying the compounds present at the site and to assess the extent to which these compounds may have become integrated into the surrounding environment. The main objective of this sampling plan is to determine if there is a release of contamination that exists within 200 feet of the residences located southwest of the Hope Iron & Metal site and to what extent.

2.1 PERSONNEL

The ADEQ sampling team will consist of Brett Baker, Sampling Team Leader, Joshua Graham and Katie Chamberlain, sampling support personnel. The ADEQ sampling team will be responsible for completing the tasks described in the following subsections. The team will be utilized for sample collection and the performance of associated field activities, as well as assisting in sample documentation and preparation of samples.

2.2 SITE ACCESS

Upon arriving at Hope Iron & Metal, the ADEQ sampling team will become familiar with the site. The sampling team will document current site conditions and examine the proposed sampling locations. Any sampling activities may occur on-site or off-site the facility. Access to the facility will be in accordance with the Arkansas Remedial Action Trust Fund Act (Ark. Code Ann. § 8-7-501 *et seq.*).

2.2.1 Health and Safety Plan Review

Before conducting sampling activities, the ADEQ sampling team will review the Health and Safety Plan for this sampling Investigation.

2.3 SAMPLING ACTIVITIES

ADEQ will collect five surface soil samples and one duplicate during this sampling investigation. All samples collected will be analyzed for TAL Total Metals, TCL Aroclors, and TCL Semivolatiles/BNA by the USEPA Region 6 Laboratory in Houston, TX.

2.3.1 Sampling Documentation

All sampling activities will be documented by the ADEQ sampling team in bound logbooks with sequentially numbered pages as required by the Hazardous Waste Division Compliance Monitoring Procedures. For each sample taken, the location, time, station number, and any field observations will be recorded. The GPS coordinates will be recorded by the RICOH G700SE GPS camera. The ADEQ sampling team will also take color photographs of the sample locations and document photographs in the field. Any administrative occurrences, conditions, or activities that affect the field work will also be recorded.

2.3.2 Health and Safety Plan Implementation

A command post will be established at a specified location where the sampling equipment can be staged safely for later use. The sampling team will be dressed in Level D personal protective

clothing. If field conditions warrant, the sampling team may be required to upgrade the level of personal protection.

2.3.3 Sample Locations

Five samples and one duplicate sample will be collected within 200 feet of the residences located southwest of the Hope Iron & Metal site. The approximate sample locations can be seen on the Sampling Location map and it is provided in **Attachment A**.

2.3.4 Sample Procedures

The types of sampling equipment used for this sampling plan will include disposable scoops. Once the sample has been collected, the sample will be placed into the sample container, labeled appropriately, and a custody seal affixed. The containers used to hold the soil samples will be 9 ounce glass jars. Sample jars will be placed in a cooler with ice and kept at 4 Celsius.^o

When preparing to sample at Hope Iron & Metal, the following procedures must be adhered to as closely as possible:

- **Sampling soils.** The samplers will use disposable scoops. Carefully remove the top layer of soil, then transfer the sample into a wide mouth glass sample jar, secure the cap tightly, label appropriately, and affix a custody seal.

2.4 QUALITY ASSURANCE/QUALITY CONTROL

The adherence to a proper Quality Assurance/Quality Control (QA/QC) Plan is essential for a successful sampling effort. The two major concerns of a QA/QC Plan are quality assurance samples and chain-of-custody. Quality assurance samples are essential to any quality control aspects of a project. Field duplicates, matrix spikes and matrix spike duplicates, trip blanks, equipment blanks, and rinsate blanks will be used to assess the precision, accuracy, representativeness, completeness, and comparability of analytical laboratory data.

In order to assess the representativeness of the samples, a field duplicate will be taken and

analyzed with every sample set composed of one to ten samples. A sample set is a collection of samples of the same type media. Sample sets composed of more than ten samples will have at least ten percent (10%) of the set as field duplicates. The field duplicates will be collected exactly at the same location, with the same apparatus, and into identical containers prepared in the same way, and filled to the same volume as the actual samples. The analysis of the duplicate samples with the same procedure and instrument will provide an indication of analytical variability and error. All testing will be in accordance with EPA method ISM01.3/ICP-AES for TAL Metals and EPA method SOM01.2 for BNA and Aroclors.

The purpose of the chain-of-custody procedure is to ensure that the samples are collected, transferred, stored, analyzed, and destroyed only by authorized personnel. Chain-of-custody is also necessary to document measures taken to prevent and/or detect tampering with the samples.

The sample collectors will remain responsible for the care and custody of each sample until they are relinquished to another authorized person at the ADEQ laboratory. The transfer of samples to other personnel will be documented on a chain-of-custody record sheet. This record must include the collectors' signatures, identification of all samples collected, and date and time of collection. The transferor and transferee must give their signatures and note the date and time of the transfer on the custody sheet.

3.0 HEALTH AND SAFETY PLAN

This Health and Safety Plan (HASP) applies to all ADEQ employees involved in the previously described scope of work. The purpose of this plan is to provide operating procedures that will ensure the health and safety of the sampling personnel. This HASP has been prepared specifically for the sampling activities being conducted at Hope Iron & Metal. This plan contains specific health, safety, and emergency response requirements necessary to perform the work described in the Sampling and Analysis Plan. The purpose of this plan is to provide site- and task-specific operating procedures that will ensure the health and safety of the work site

sampling personnel.

Medical Park Hospital is the nearest Medical facility to the site and is located at 2001 South Main Street, Hope, Hempstead County, Arkansas. A map providing the Medical Center location and driving directions to the site is provided in **Attachment B**. The telephone number for the North Metro Medical Center is 870-777-2323. In addition, 911 should be dialed for all emergencies.

3.1 HAZARD ASSESSMENT

Moderate safety risks are associated with the soil sampling activities that will be conducted during the sampling investigation at Hope Iron & Metal. Such risks include insects, sharp objects and uneven terrain.

3.2 AUTHORITIES AND RESPONSIBILITIES

The general responsibilities and authority of each member will be described in this section. The key contacts for the Hope Iron & Metal sampling investigation are:

ADEQ Sampling Team Leader Contact
Brett Baker, Inspector Supervisor
Arkansas Department of Environmental Quality
Hazardous Waste Division
5301 Northshore Drive
North Little Rock, AR 72118
501-682-0874

Additional ADEQ Contact

Katie Chamberlain, Inspector
Arkansas Department of Environmental Quality
Hazardous Waste Division
5301 Northshore Drive
North Little Rock, AR 72118
501-682-0872

3.2.1 Sampling Team Leader

The Sampling Team Leader, Brett Baker of ADEQ, will be responsible for ensuring that all work

performed for this specific sampling activity is done in accordance with the Sampling and Analysis Plan. The Sampling Team Leader shall effectively conduct field activities, enforce appropriate action if health and safety requirements are not being followed or when unsafe practices occur, and oversee work practices to verify they are in accordance with this document. The Sampling Team Leader has the authority to suspend work activities if the health and safety of the personnel is in danger.

3.3 PERSONAL PROTECTIVE EQUIPMENT

Personnel working within the actual sampling areas shall be required to wear, at a minimum, some type of short-sleeved garment (shirt, coveralls, tyveks), long pants (tyvek), steel-toed boots, and gloves resistant to chemical permeation.

This sampling investigation at Hope Iron & Metal will involve level D work, unless a need arises for upgrade. All field personnel shall be required to have a full-face respirator available in the event the level of work activity is upgraded.

3.4 EMPLOYEE TRAINING REQUIREMENTS

Workers who are delegated responsibilities for work within the sampling areas are required to have at a minimum:

- ▶ 40-Hour health and safety training for hazardous waste work
- ▶ 8-Hour health and safety refresher training

3.5 MEDICAL SURVEILLANCE

All personnel involved in Level C, B, or A work activities shall have a pre-task medical examination within the past year. The purpose of the physical examination is to (1) obtain background blood and urine chemistries, (2) note conditions that could increase susceptibility to heat stress, and (3) determine the ability of personnel to wear respirators. Additional medical examinations will be performed whenever there is an actual or suspected excessive exposure to

contaminants; following injuries or temperature stresses; or upon experience of exposure symptoms.

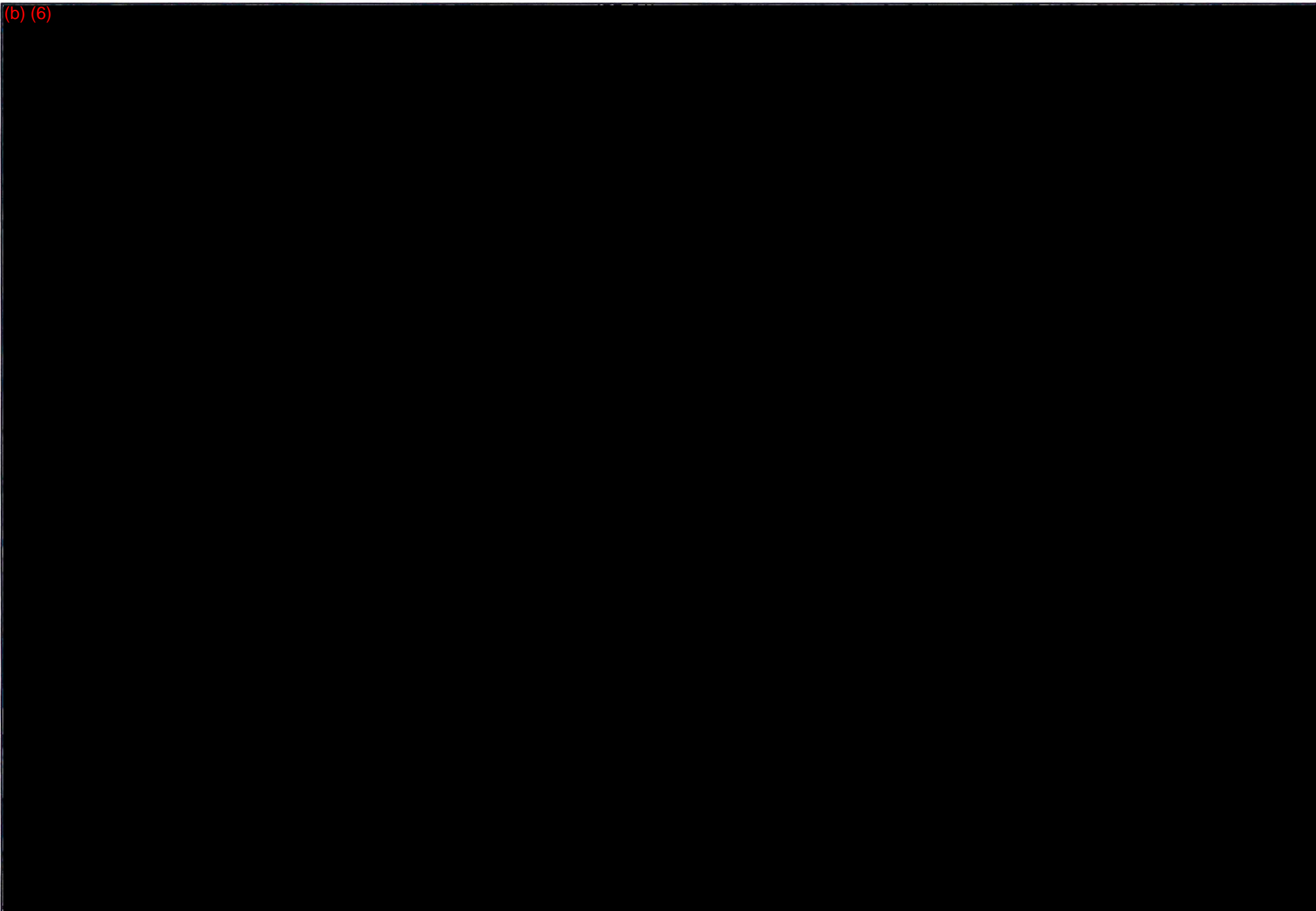
3.6 EMPLOYEE CERTIFICATION

The following individuals have read and understand the Hope Iron & Metal Sampling and Analysis Plan and Health and Safety Plan and agree to abide by its procedures:

NAME	SIGNATURE	DIVISION	DATE

Attachment A

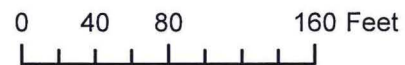
Sampling Locations



Hope Iron and Metal
Sampling Locations
Attachment A

Legend:

- Surface Soil Sample



AFIN:
29-00525

Sampling Locations

Location: *Hope, Arkansas*

County: *Hempstead*

Date: *September 2015*

Attachment B
Medical Center Location & Directions



A	812 N Main St Hope, AR 71801-2626 Add a Note	Miles Per Section	Miles Driven
	1. Start out going south on N Main St toward W Greenwood St.	Go 0.3 Mi	0.3 mi
↩	2. Take the 1st left onto E D. <i>E D is just past W E If you reach E C you've gone a little too far</i>	Go 0.1 Mi	0.4 mi
➡	3. Take the 2nd right onto N Hazel St / AR-32 / AR-29-BR. <i>N Hazel St is just past N Walnut St Beebe Memorial Care Church is on the corner If you reach N Laurel St you've gone a little too far</i>	Go 0.4 Mi	0.8 mi
➡	4. Turn right onto E 3rd St / US-67 / US-278 / AR-4 / AR-29 / AR-73. Continue to follow E 3rd St / US-67 / US-278 / AR-4 / AR-29. <i>E 3rd St is just past E 2nd St If you reach E 4th St you've gone a little too far</i>	Go 0.1 Mi	0.9 mi
↩	5. Take the 2nd left onto S Main St / AR-29-BR. <i>S Main St is just past S Walnut St First Baptist Church is on the left If you are on W 3rd St and reach S Elm St you've gone a little too far</i>	Go 1.3 Mi	2.2 mi
■	6. 2001 S MAIN ST is on the left. <i>Your destination is just past E 19th St If you are on AR-29-BR and reach W 21st St you've gone a little too far</i>		2.2 mi
B	2001 S Main St Hope, AR 71801-8124 Add a Note	2.2 mi	2.2 mi

(b) (6)

SD-01

Hope Iron and Metal
Sampling Locations
Attachment A

Legend:

- Surface Soil Sample

0 40 80 160 Feet



ADEQ
ARKANSAS
Department of Environmental Quality

AFIN:
29-00525

Sampling Locations

Location: *Hope, Arkansas*

County: *Hempstead*

Date: *September 2015*